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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,264	12/03/2003	Kirk E. Newman		4000

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Naval Surface Warfare Center
Indian Head Division
101 Strauss Ave., Bldg. D-31
Indian Head, MD 20640-5035

EXAMINER

GELLNER, JEFFREY L

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/729,264

Applicant(s)

NEWMAN ET AL.

Examiner

Jeffrey L. Gellner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33,47 and 48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33,47 and 48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

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DETAILED ACTION

Upon reconsideration of the art the allowability of claims 1-9 is withdrawn. Examiner regrets any inconvenience to the Applicants.

Drawings

The drawings were received on 17 August 2006. These drawings are approved.

Specification

The disclosure is objected to because of the following informalities:

The replacement paragraph for paragraph 0057 received 17 August 2006 appears to be incomplete because with the deletion of "PBXIH 135" the sentence now reads in part "a castable composition known as."

The replacement paragraph for paragraph 0059 received 17 August 2006 appears to be incomplete because with the deletion of "PBXIH 135" the sentence now reads in part "exceed the performance of conventional thermobaric explosive, in . . .".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-33, 47, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takit (EP 0959057 A1) in view of Brown et al. (US 4,764,316) in further view of Hodgson (US 3,377,955).

As to claims 1, 10, 24, and 48, Takit discloses an article of manufacture or a pressable or pressed thermobaric explosive composition (see col. 4, para. 0031) comprising a substantially uncoated fuel particle (from "mixed with a fuel" from col. 4 para. 0029), mechanically blended with oxidizer that is coated (from col. 3 para. 0019) with a binder (col. 4 para. 0025 and 0026). Not disclosed is the fuel being at least 40 percent weight and the oxidizer being a nitramine. Brown et al., however, discloses a nitramine as an oxidizer mixed with a fuel and binder (col. 5 lines 11-22); and, Hodgson discloses the fuel at least 40 percent (from col. 11 lines 41-49). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the composition of Takit by using a nitramine as disclosed by Brown et al. depending upon use (see Takit at col. 4 para. 0030) and to have the fuel at at least 40 percent as disclosed by Hodgson depending upon use (see Takit at col. 4 para. 0030).

As to claims 2, 11, 25, the limitations of claims 1, 10, and 24 are disclosed as described above. Not disclosed is the binder 1 to 6 percent of the composition. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Takit as modified by Brown et al. and Hodgson by having the binder at from 1 to 6 percent depending upon use of the composition (from Takit at col. 4 para. 0030).

As to claims 3, 12, and 28, the limitations of claims 1, 10, and 24 are disclosed as described above. Takit as modified by Brown et al. and Hodgson further disclose the fuel being

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aluminum (Brown et al. at col. 5 lines 11-13; Hodgson at col. 11 lines 41-48). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Takit as modified by Brown et al. and Hodgson by using aluminum as the fuel depending upon use of the composition (from Takit at col. 4 para. 0030).

As to claims 4, 13, and 29, the limitations of claims 1, 10, and 28 are disclosed as described above. Not disclosed is the uncoated fuel from 50 to 70 weight percent. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Takit as modified by Brown et al. and Hodgson by having the fuel from 50 to 70 weight percent depending upon use of the composition (from Takit at col. 4 para. 0030).

As to claims 5, 14, and 30, the limitations of claims 1, 10, and 28 are disclosed as described above. Not disclosed is the uncoated fuel from 60 to 70 weight percent. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Takit as modified by Brown et al. and Hodgson by having the fuel from 60 to 70 weight percent depending upon use of the composition (from Takit at col. 4 para. 0030).

As to claims 6, 15, and 31, the limitations of claims 1, 10, and 28 are disclosed as described above. Not disclosed are the fuel particles with diameters of about 1 to 5 microns. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Takit as modified by Brown et al. and Hodgson by having the fuel particles with diameters of about 1 to 5 microns depending upon use of the composition (from Takit at col. 4 para. 0030).

As to claim 7, the limitations of claim 1 are disclosed as described above. Takit as modified by Brown et al. and Hodgson further disclose the oxidizer being HMX (Brown et al. at

col. 5 lines 11-13). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Takit as modified by Brown et al. and Hodgson by using HMX as the oxidizer depending upon use of the composition (from Takit at col. 4 para. 0030).

As to claims 8, 16, and 32, the limitations of claims 1, 10, and 28 are disclosed as described above. Takit as modified by Brown et al. and Hodgson further disclose the oxidizer being an ionic salt (Brown et al. at col. 5 lines 11-13). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Takit as modified by Brown et al. and Hodgson by using HMX as the oxidizer depending upon use of the composition (from Takit at col. 4 para. 0030).

As to claims 9, 17, and 33, the limitations of claims 7, 16, and 33 are disclosed as described above. Not disclosed is fuel, the nitramine, and the ionic salt being from 92 to 99 percent of weight of the composition. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Takit as modified by Brown et al. and Hodgson by having fuel, the nitramine, and the ionic salt being from 92 to 99 percent of weight of the composition depending upon use of the composition (from Takit at col. 4 para. 0030).

As to claims 18-23, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Takit as modified by Brown et al. and Hodgson by having the composition meet these limitations so as to achieve the desired characteristics for the fuel and uses for the composition.

As to claims 26 and 27, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Takit as modified by Brown et al. and Hodgson by having the composition used with these structural limitations so as to achieve the desired use for the composition.

As to claim 47, Takit as modified by Brown et al. and Hodgson further disclose the free fuel particles being unencapsulated (from Takit at col. 4 para. 0030).

Response to Arguments

Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection. In general, Applicants argued that Brown et al. lacked claimed limitations. Examiner has amended the rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Gellner whose telephone number is 571.272.6887. The examiner can normally be reached on Monday-Friday, 8:30-4:00, alternate.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on 571.272.6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'J. Gellner', with a stylized flourish at the end.

Jeffrey L. Gellner
Primary Examiner
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